# Calculation Methods for Grains Ounce Equivalents in the Child and Adult Care Food Program

#### July 1, 2021, through June 30, 2022

This guidance applies to child care centers, family day care homes, emergency shelters, at-risk afterschool care centers, and adult day care centers that participate in the U.S. Department of Agriculture's (USDA) Child and Adult Care Food Program (CACFP). Grains ounce equivalents do not apply to the CACFP infant meal patterns for birth through 11 months.

Per USDA memo, COVID—19: Child Nutrition Response #91: Nationwide Waiver to Allow Specific Meal Pattern Flexibility in the Child and Adult Care Food Program for School Year 2021-2022, CACFP sponsors that cannot meet the WGR requirement from July 1, 2021, through June 30, 3022, and/or cannot meet the ounce equivalents requirement by October 1, 2021, must request a waiver from the CSDE. For more information, visit the "How To" section of the CSDE's Operating Child Nutrition Programs during COVID-19 Outbreaks webpage.

#### **Overview of Crediting Requirements for Grains**

To credit as the grains component in the CACFP meal patterns, grain products and recipes must be made with creditable grains. Creditable grains include whole grains, enriched grains, bran, and germ.

Creditable grain foods include products and recipes that are enriched, whole grain, or whole-grain rich (WGR). Creditable cooked and ready-to-eat (RTE) breakfast cereals include products that are whole grain, WGR, enriched, or fortified. For guidance on identifying creditable grains for the CACFP meal patterns, refer to the CSDE's resources, *How to Identify Creditable Grains in the CACFP, Whole Grain-rich Criteria for the CACFP, Crediting Breakfast Cereals in the CACFP, Crediting Whole Grains in the CACFP, and Crediting Enriched Grains in the CACFP.* 



For guidance on the CACFP meal patterns for children and crediting requirements for the grains component, visit the CSDE's Meal Patterns for CACFP Child Care Programs webpage and the "Grains Component for CACFP Child Care Programs" section of the CSDE's Crediting Foods in CACFP Child Care Programs webpage. For guidance on the CACFP adult meal patterns and crediting requirements for the grains component for adult participants, visit the CSDE's Meal Patterns for CACFP Adult Day Care Centers webpage and the "Grains Component for CACFP Adult Day Care Centers" section of the CSDE's Crediting Foods in CACFP Adult Day Care Centers webpage.

#### **Overview of Ounce Equivalents**

Effective October 1, 2021, the required quantities for the grains component are in ounce equivalents. The USDA allows two methods for determining the ounce equivalents of creditable grain products and recipes. Method 1 (weight or volume) is used for commercial grain products and may also be used for standardized recipes that indicate the weight of the prepared (cooked) serving. Method 2 (creditable grains) is used for standardized recipes and may also be used for commercial grain products that have a product formulation statement (PFS) indicating the weight of creditable grains per serving.

CACFP facilities may use either method but must document how the crediting information is determined for each grain product and recipe. For some commercial products, method 2 is required. For more information, refer to "Choosing a Calculation Method" and "When Method 2 is Required for Commercial Products" in this document.

CACFP facilities are not required to use these methods for commercial products with a Child Nutrition (CN) label. CN-labeled products credit based on the stated crediting information for grain ounce equivalents. CN labels are available only for main dish entrees that contribute to the meat/meat alternates component, such as pizza, breaded chicken nuggets, and cheese ravioli. However, CN labeled foods usually indicate the contribution of grains, vegetables, and fruits that are part of these products. For more information, refer to the CSDE's resource, *Using Child Nutrition (CN) Labels in the CACFP*.



#### Method 1: Weights or Volumes (USDA's Exhibit A Chart)

Method 1 uses the USDA's chart, *Exhibit A: Grain Requirements for Child Nutrition Programs* (Exhibit A) to determine the required weight (groups A-E) or volume (groups H-I) for the grain group where the product belongs. The required amounts for the grains component are not the same for all Child Nutrition Programs. The CSDE's resource, *Grain Ounce Equivalents for the CACFP*, lists the Exhibit A grain ounce equivalents that apply to the CACFP meal patterns. Groups F and G (grain-based desserts) are not included because grain-based desserts do not credit in the CACFP.

The amount of a creditable grain food that provides 1 ounce equivalent varies because different types of foods contain different amounts of creditable grains. For example, to credit as 1 ounce equivalent of the grains component, a roll must weigh 28 grams (1 ounce), a corn muffin must weigh 34 grams (1.2 ounces), and a blueberry muffin must weigh 55 grams (2 ounces). The minimum amount that credits toward the grains component is ½ ounce equivalent.

- **Groups A-E** include baked goods, such as crackers, animal and graham crackers, breads, rolls, taco shells, muffins, waffles, and pancakes. The amount that provides 1 ounce equivalent ranges from 22 grams (0.8 ounce) for foods in group A to 69 grams (2.4 ounces) for foods in group E.
- **Group H** includes cereal grains, such as pasta, cooked breakfast cereals, and other cereal grains, e.g., amaranth, barley, buckwheat, cornmeal, corn grits, farina, kasha, millet, oats, quinoa, wheat berries, and rolled wheat. These foods require ½ cup cooked or 28 grams (1 ounce) dry to credit as 1 ounce equivalent of the grains component. **Note:** Cereal grains typically credit based on the **cooked** serving, but menu planners may choose to credit cereal grains using the dry uncooked weight. For guidance on crediting cooked breakfast cereals, refer to the CSDE's resource, *Crediting Breakfast Cereals in the CACFP*.

Dry cereal grains used as an ingredient in a recipe (such as rolled oats in bread) require 16 grams of creditable grains to credit as 1 ounce equivalent of the grains component.

• **Group I** includes RTE cold breakfast cereals. These foods require 1 ounce (28 grams) to credit as 1 ounce equivalent of the grains component. A 1-ounce serving equals 1 cup of flaked or round cereal, 1½ cups of puffed cereal, and ¼ cup of granola. For guidance on crediting RTE breakfast cereals, refer to the CSDE's resource, *Crediting Breakfast Cereals in the CACFP*.

Method 1 is used for all commercial grain products. This method may also be used for recipes if the CACFP facility knows the weight (grams or ounces) of the prepared (cooked) serving. For more information, refer to "Using Method 1 (USDA's Exhibit A chart)" in this document.

#### Using Method 1 for commercial products

The product's Nutrition Facts label or PFS must indicate the weight (ounces or grams) of the manufacturer's serving. The tools below help menu planners determine the ounce equivalents contribution of creditable commercial grain products.

- CSDE's CACFP crediting worksheets for commercial grain products: The CSDE's Child Care Worksheet 1: Crediting Commercial Grains in the CACFP and Adult Centers Worksheet 1: Crediting Commercial Grains in the CACFP Excel worksheets determine if a commercial grain product meets the CACFP crediting requirements and WGR criteria, and calculate the ounce equivalents contribution of the serving.
- USDA's Exhibit A Grains Tool: This online tool of the USDA's Food Buying Guide for Child Nutrition Programs (FBG) determines the ounce equivalents of commercial grain products. For more information, watch the USDA's webinars, Exhibit A Grains Tool to the Rescue and How to Maximize the Exhibit A Grains Tool.

**Note:** For some commercial grain products, CACFP facilities must use method 2 to determine the ounce equivalents. For more information, refer to "When Method 2 is Required for Commercial Products" in this document.

#### Using method 1 for foods made from scratch

CACFP facilities must have recipes on file that indicate the weight of the prepared (cooked) serving of foods made from scratch. Many recipes do not list the serving weight. If the recipe does not provide this information, CACFP facilities could determine the average weight per serving by weighing several servings of the recipe. For more information, refer to the CSDE's *Yield Study Data Form for Child Nutrition Programs*.

#### **Method 2: Creditable Grains**

Method 2 determines the ounce equivalents for creditable grain products and recipes by calculating the total weight (grams) of creditable grains per serving. The grams of creditable grains are obtained from the commercial product's PFS or calculated from the grain quantities in the CACFP facility's recipe. To credit as 1 ounce equivalent of the grains component, foods in groups A-E of the USDA's Exhibit A chart must contain **16 grams** of creditable grains and foods in groups H-I must contain **28 grams** of creditable grains.

#### Using method 2 for commercial products

CACFP facilities must obtain a PFS from the manufacturer that documents the weight of the creditable grains per serving. This information cannot be determined from the product's Nutrition Facts label or packaging.

For information on PFS forms, refer to the CSDE's resources, *Using Product Formulation Statements in the CACFP* and *Accepting Processed Product Documentation in the CACFP*, and the USDA's handouts, *Product Formulation Statement for Documenting Grains in the Child Nutrition Programs*, and *Tips for Evaluating a Manufacturer's Product Formulation Statement*. For additional guidance on documentation for commercial products, visit the "Crediting Commercial Processed Products in CACFP Child Care Programs" or "Crediting Commercial Processed Products in CACFP Adult Day Care Centers" sections of the CSDE's CACFP webpages.

#### Using method 2 for foods made from scratch

Foods made from scratch must have a recipe that indicates the weight of each grain ingredient. CACFP facilities must determine the grams of creditable grains per serving from the weight of each grain ingredient listed in the recipe. For assistance with recipe calculations, such as converting fractions to decimals, refer to the Institute of Child Nutrition's (ICN) *Basics at a Glance Portion Control Poster* and the decimal equivalents of fractions in the "Introduction" section of the USDA's FBG.

The tools below help menu planners determine the ounce equivalents contribution of creditable grain recipes.

- **CSDE's crediting worksheets for grain recipes:** These Excel worksheets determine if grain products and recipes meet the CACFP crediting requirements and WGR criteria, and calculate the ounce equivalents contribution of the serving.
  - o Adult Center Worksheet 1: Crediting Commercial Grains in the CACFP
  - o Adult Center Worksheet 4: Crediting Family-size Recipes for Grains in the CACFP
  - o Adult Center Worksheet 5: Crediting Quantity Recipes for Grains in the CACFP
  - o Child Care Worksheet 1: Crediting Commercial Grains in the CACFP
  - Child Care Worksheet 4: Crediting Family-size Recipes for Grains in the CACFP
  - Child Care Worksheet 5: Crediting Quantity Recipes for Grains in the CACFP

The grain crediting worksheets for CACFP adult day care centers are available in the "Documents/Forms" section of the CSDE's Crediting Foods in CACFP Adult Day Care Centers webpage. The grain crediting worksheets for CACFP child care programs are available in the "Documents/Forms" section of the CSDE's Crediting Foods in CACFP Child Care Programs webpage.

 USDA's Recipe Analysis Workbook: Use the FBG's online Recipe Analysis Workbook to search for ingredients, develop a standardized recipe, and determine the recipe's meal pattern contribution per serving. To access this tool, users must create a free account on the USDA's FBG website.

**Note:** If the recipe lists grain ingredients by volume (e.g., cups and quarts) instead of weight (pound and ounces), each measurement must be converted to the equivalent weight (grams). For more

information, refer to "Method 2 calculation for recipes listing the volume of grain ingredients" in this document.

For additional guidance on determining the ounce equivalents of recipes, refer to the USDA's resource, *Determining Ounce Equivalents of Grains in CACFP Recipes*, and visit the "Crediting Foods Prepared on Site in CACFP Child Care Programs" or "Crediting Foods Prepared on Site in CACFP Adult Day Care Centers" sections of the CSDE's CACFP webpages.

#### When Method 2 is Required for Commercial Products

CACFP facilities may need to obtain additional information to determine the crediting information for some commercial grain products. A PFS is required for commercial products when any of the following situations apply:

- a creditable grain is not the first ingredient, but the product contains more than one creditable grain;
- a combination food that contains a grain portion is not CN labeled;
- the manufacturer claims that the product's serving size is less than the required weight or volume in the USDA's Exhibit A chart; or
- the product is not listed in the USDA's Exhibit A chart.

The requirements for each situation are summarized below. The manufacturer's PFS must indicate the weight (grams) of each creditable grain per serving and demonstrate how the product provides that amount according to the FBG or USDA's regulations, guidance, or policies. If the manufacturer will not supply a PFS, or the PFS does not provide the appropriate documentation, the product cannot credit as the grains component in the CACFP.

CACFP facilities should verify the accuracy of the PFS **before** including the product in reimbursable meals and snacks, and must maintain all crediting documentation on file. The CSDE will review this information during the Administrative Review of the CACFP. For more information, refer to the USDA's document, *Tips for Evaluating a Manufacturer's Product Formulation Statement*.

# Situation 1: Creditable grain is not the first ingredient, but the product contains more than one creditable grain

A PFS is required when a creditable grain is not the first ingredient (excluding water), but the ingredients statement for the commercial grain product (or the *grain portion* of a combination food) contains more than one creditable grain. For grain products (such as breads, rolls, muffins, and waffles), the PFS must document that the combined weight of all creditable grains is the greatest ingredient by weight. For combination foods (such as pizza, lasagna, and breaded chicken), the PFS

must document that the combined weight of all creditable grains in the *grain portion* is the greatest ingredient by weight in the *grain portion*.

For example, the yellow corn flour in the product below is not a creditable grain because it is not whole grain or enriched. For this product to credit in CACFP meals and snacks, the PFS must indicate that the combined weight of the creditable grains (whole-wheat flour, rolled oats, and oat bran) is more than the weight of the yellow corn flour (noncreditable grain).

• Ingredients: Yellow corn flour, whole-wheat flour, sugar, rolled oats, wheat gluten. Contains 2% or less of each of the following: honey, salt, oat bran, yeast, molasses.

#### Situation 2: Combination food that contains a grain portion is not CN labeled

A PFS is required when a commercial combination food that contains a grain portion is not CN labeled. Examples include pizza crust in pizza, noodles in lasagna, and baked chicken coated with breadcrumbs or crushed cereal flakes. The PFS must document that creditable grains are the greatest ingredient by weight in the grain portion.

#### Situation 3: Manufacturer claims serving size is less than USDA's Exhibit A chart

A PFS is required when a manufacturer claims that a commercial grain product can provide the required creditable grains using a serving that is less than the minimum weight or volume listed in the USDA's Exhibit A chart (refer to the CSDE's resource, *Grain Ounce Equivalents for the CACFP*). An example is a manufacturer that claims a <sup>3</sup>/<sub>4</sub>-ounce whole-grain bagel credits as 1 ounce equivalent of the grains component. The product's PFS must indicate how the manufacturer obtained this crediting information based on the FBG or the USDA's regulations, guidance, or policies.

#### Situation 4: Product is not listed in USDA's Exhibit A chart

A PFS is required when a commercial grain product is not listed in any of the nine groups of the USDA's Exhibit A chart (refer to the CSDE's resource, *Grain Ounce Equivalents for the CACFP*). The PFS must indicate the weight of each creditable grain and how the manufacturer obtained the product's crediting information based on the USDA's regulations, guidance, or policies.



#### **Choosing a Calculation Method**

CACFP facilities may choose to use either crediting method but must document which method is used for each product. For some commercial grain products, methods 1 and 2 may result in a different crediting contribution. For example, a 1-ounce bagel might credit as 1 ounce equivalent of the grains component using method 1 (USDA's Exhibit A chart), but might credit as  $1\frac{1}{2}$  ounce equivalents using method 2 (creditable grains).

CACFP facilities should use the same calculation method each time the same product is on the menu. For example, if method 2 is used to determine the crediting of a whole-grain bagel, that same bagel should always be credited using method 2. The CSDE strongly recommends choosing one calculation method for consistent crediting. This simplifies menu planning and assists CACFP facilities with documenting compliance for the grains component.

### **Sample Calculations for Commercial Products**

This section demonstrates how to calculate the ounce equivalents of commercial grain products using either the appropriate weight (groups A-E) or volume (groups H-I) in the USDA's Exhibit A chart (method 1), or the weight of creditable grains per serving (method 2). CACFP facilities may also use the CSDE or USDA tools to automatically calculate this information (refer to "Using Method 1 for commercial products" in this document).

#### Sample Calculations for Commercial Products in Groups A-E

Table 1 shows a sample calculation using method 1 for a commercial product in group C, whole-wheat pancakes. Table 2 shows a sample calculation for this same product using method 2. These examples show how each method can result in a different crediting contribution for the same product. For some products, methods 1 and 2 result in the same crediting contribution.

To determine the meal pattern contribution of a commercial grain product using method 1, use the **weight** (ounces or grams) of one serving from the product's Nutrition Facts label or PFS. If the product lists the serving size in ounces and grams, menu planners may choose to use either one. To convert ounces to grams, multiply ounces by 28.35.

Table 1. Using method 1 (USDA's Exhibit A chart) to calculate the ounce equivalents for commercial grain products in groups A-E <sup>1</sup>

#### Whole-wheat Pancakes

Manufacturer's serving size: Group C (USDA's Exhibit A chart):

1 pancake: 1 ounce (28 grams) 1 ounce equivalent = 34 grams or 1.2 ounces

**Ingredients:** Water, whole-wheat flour, enriched flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid), sugar, canola oil. Contains 2% or less of: leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), eggs, salt, buttermilk.

- 1. List the weight of the **manufacturer's serving** from the product's Nutrition Facts label or PFS (1 ounce = 28.35 grams).
- 2. List the required weight for **1 ounce equivalent** for the product's group (A-E) in the USDA's Exhibit A chart. <sup>1</sup>
- 3. Determine the **ounce equivalents** in one serving of the product: Divide A by B.
- 4. Round **down** the number in C to the **nearest**1/4 **ounce equivalent**. For example, 1.49 and 1.27 round down to 1.25, and 1.24 rounds down to 1.

A 1 ounce

B 1.2 ounces

C 0.83 ounce equivalents per manufacturer's serving

D 0.75 ounce equivalent per manufacturer's serving (rounded)

**Summary of crediting information:** The manufacturer's serving size (one pancake) credits as <sup>3</sup>/<sub>4</sub> ounce equivalent (oz eq) of the grains component. This meets or exceeds the CACFP meal pattern requirement for the meals and snacks indicated below.

Participants	CACFP meal pattern requirements for grains component		
Farticipants	Breakfast	Lunch/Supper	Snack
Ages 1-2	☑ ½ oz eq	☑ ½ oz eq	<b>☑</b> ½ oz eq
Ages 3-5	☑ ½ oz eq	☑ ½ oz eq	<b>☑</b> ½ oz eq
Ages 6-12 and 13-18	□ 1 oz eq	□ 1 oz eq	□ 1 oz eq
Adult participants	□ 2 oz eq	□ 2 oz eq	□ 1 oz eq

<sup>&</sup>lt;sup>1</sup> Calculations use the weight for the appropriate grain group in the USDA's Exhibit A chart (refer to the CSDE's resource, *Grain Ounce Equivalents for the CACFP*). Pancakes are in group C, which requires 34 grams (1.2 ounces) to credit as 1 ounce equivalent of the grains component.

Table 2. Using method 2 (creditable grains) to calculate the ounce equivalents for commercial grain products in groups A-E <sup>1</sup>

#### Whole-wheat Pancakes

#### Manufacturer's serving size:

1 pancake: 1 ounce (28 grams)

Creditable grains per serving (from product's PFS):

Whole-wheat flour: 9 grams
Enriched flour: 8 grams

**Ingredients:** Water, whole-wheat flour, enriched flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid), sugar, canola oil. Contains 2% or less of: leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), eggs, salt, buttermilk.

1. List the **combined weight (grams)** of whole and enriched grains in one serving from the product's PFS. <sup>1</sup>

A 17 grams

9 grams of whole-wheat flour +

8 grams of enriched flour =

17 grams of creditable grains

2. Determine the **ounce equivalents** in one serving of the product: Divide A by 16 (1 ounce equivalent for groups A-E = 16 grams of creditable grains).

B 1.06 ounce equivalents per manufacturer's serving

3. Round **down** the number in B to the **nearest**1/4 **ounce equivalent**. For example, 1.49 and 1.27 round down to 1.25, and 1.24 rounds down to 1

ounce equivalent

1 per manufacturer's
serving (rounded)

**Summary of crediting information:** The manufacturer's serving size (one pancake) credits as **1 ounce equivalent** (oz eq) of the grains component. This meets or exceeds the CACFP meal pattern requirement for the meals and snacks indicated below.

Darticipanto	CACFP meal pattern requirements for grains component			
Participants	Breakfast	Lunch/Supper	Snack	
Ages 1-2	☑ ½ oz eq	☑ ½ oz eq	<b>☑</b> ½ oz eq	
Ages 3-5	☑ ½ oz eq	☑ ½ oz eq	☑ ½ oz eq	
Ages 6-12 and 13-18	☑ 1 oz eq	☑ 1 oz eq	☑ 1 oz eq	
Adult participants	□ 2 oz eq	□ 2 oz eq	☑ 1 oz eq	

<sup>&</sup>lt;sup>1</sup> To credit a commercial product using method 2, CACFP facilities must obtain a PFS from the manufacturer.

#### Sample Calculations for Commercial Products in Group H

Table 3 shows a sample calculation using method 1 to determine the ounce equivalents for a commercial whole-grain pasta product in group H. Table 4 shows a sample calculation for this same product using method 2. Each method results in the same crediting contribution for this product.

For some products, methods 1 and 2 result in a different crediting contribution. CACFP facilities may use either method but must document how the crediting information was determined (refer to "Choosing a Calculation Method").

Cereal grains in group H typically credit based on the **cooked** serving, i.e., ½ cup of cooked cereal credits as 1 ounce equivalent of the grains component. However, the menu planner may choose to calculate the product's ounce equivalents based on the **dry uncooked weight**, i.e., 1 ounce (28 grams) of dry cereal grains credits as 1 ounce equivalent of the grains component. The menu planner must determine the weight (ounces or grams) of one serving from the commercial product's Nutrition Facts label or the manufacturer's PFS. If the product lists the serving size in ounces and grams, the menu planner may choose to use either one.



Table 3. Using method 1 (USDA's Exhibit A chart) to calculate the ounce equivalents for commercial grain products in group H <sup>1</sup>

#### Whole-grain Pasta

Manufacturer's serving size: Group H (USDA's Exhibit A chart):

32 grams dry ( $\frac{1}{2}$  cup cooked) 1 ounce equivalent =  $\frac{1}{2}$  cup cooked or 28 grams dry

Ingredients: Whole-grain durum wheat flour, enriched wheat flour.

- List the weight of the manufacturer's serving from the product's Nutrition Facts label or PFS (1 ounce = 28.35 grams).
  - l or PFS A 32 grams
- 2. List the required uncooked (dry) weight for **1 ounce equivalent** for the product's group in the USDA's Exhibit A chart (group H). <sup>1</sup>
- B 28 grams
- 3. Determine the **ounce equivalents** in one serving of the product: Divide A by B.
- C 1.14 ounce equivalents per manufacturer's serving
- 4. Round **down** the number in C to the **nearest** ½ **ounce equivalent**. For example, 1.49 and 1.27 round down to 1.25, and 1.24 rounds down to 1.
- D 1 manufacturer's serving (rounded)

**Summary of crediting information:** The manufacturer's serving size (32 grams dry) credits as **1 ounce equivalent** (oz eq) of the grains component. This meets or exceeds the CACFP meal pattern requirement for the meals and snacks indicated below.

Participants	CACFP meal pattern requirements for grains component		
Farticipants	Breakfast	Lunch/Supper	Snack
Ages 1-2	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq
Ages 3-5	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq	☑ ½ oz eq
Ages 6-12 and 13-18	<b>☑</b> 1 oz eq	☑ 1 oz eq	<b>☑</b> 1 oz eq
Adult participants	□ 2 oz eq	□ 2 oz eq	<b>☑</b> 1 oz eq

<sup>&</sup>lt;sup>1</sup> Calculations use the weight for the appropriate grain group in the USDA's Exhibit A chart (refer to the CSDE's resource, *Grain Ounce Equivalents for the CACFP*). Pasta is in group H, which requires 28 grams dry to credit as 1 ounce equivalent of the grains component.

Table 4. Using method 2 (creditable grains) to calculate the ounce equivalents for commercial grain products in group H

#### Whole-grain Pasta

Manufacturer's serving size:

32 grams (1/2 cup cooked)

Creditable grains per serving (from product's

PFS):

Whole-wheat flour: 14 grams
Enriched flour: 12 grams

Ingredients: Whole-grain durum wheat flour, enriched wheat flour.

1. List the **combined weight (grams)** of whole and enriched grains in 1 ounce equivalent (½ cup) from the product's PFS (1 ounce = 28.35 grams). <sup>1</sup>

A 26 grams

14 grams of whole-wheat flour +

12 grams of enriched flour =

26 grams of creditable grains

2. Determine the **ounce equivalents** in one serving of the product: Divide A by 28 (1 ounce equivalent for group H = 28 grams of creditable grains).

B 0.93 ounce equivalent per manufacturer's serving

3. Round **down** the number in B to the **nearest**1/4 **ounce equivalent**. For example, 1.49 and 1.27 round down to 1.25, and 1.24 rounds down to 1

ounce equivalent
0.75 per manufacturer's
serving (rounded)

**Summary of crediting information:** The manufacturer's serving size (½ cup cooked) credits as **1 ounce equivalent** (oz eq) of the grains component. This meets or exceeds the CACFP meal pattern requirement for the meals and snacks indicated below.

Participants	CACFP meal pattern requirements for grains component		
r articipants	Breakfast	Lunch/Supper	Snack
Ages 1-2	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq
Ages 3-5	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq
Ages 6-12 and 13-18	☑ 1 oz eq	☑ 1 oz eq	<b>☑</b> 1 oz eq
Adult participants	□ 2 oz eq	□ 2 oz eq	☑ 1 oz eq

<sup>&</sup>lt;sup>1</sup> To credit a commercial product using method 2, CACFP facilities must obtain a PFS from the manufacturer.

#### Sample Calculations for Foods Made from Scratch

CACFP facilities must have recipes on file to document the meal pattern contribution of grain foods made from scratch, such as breads, rolls, muffins, pizza dough, and pancakes. This section demonstrates how to calculate the ounce equivalents of recipes using either the appropriate weight (groups A-E) or volume (groups H-I) in the USDA's Exhibit A chart (method 1), or the weight of creditable grains per serving (method 2). CACFP facilities may also use the CSDE or USDA tools to automatically calculate this information (refer to "Using method 2 for foods made from scratch" in this document).

CACFP facilities do not need to calculate ounce equivalents for grain foods prepared from the USDA's recipes for Child Nutrition Programs. These standardized recipes specify the meal pattern crediting information per serving. For links to the USDA's recipes, visit the Institute of Child Nutrition's (ICN) Child Nutrition Recipe Box and the "Recipes" section of the CSDE's Menu Planning for Child Nutrition Programs webpage. For information on standardized recipes, visit the "Crediting Foods Prepared on Site in CACFP Child Care Programs" or "Crediting Foods Prepared on Site in CACFP Adult Day Care Centers" sections of the CSDE's CACFP webpages.

#### Method 2 calculation for recipes listing the weight of grain ingredients

Table 5 shows how to use method 2 to calculate the ounce equivalents for a standardized recipe that lists the weight of the grain ingredients. Foods in groups A-E must contain **16 grams** of creditable grains per recipe serving to credit as 1 ounce equivalent of the grains component and **8 grams** of creditable grains to credit as ½ ounce equivalent of the grains component.



# Table 5. Using method 2 (creditable grains) to calculate the ounce equivalents for recipes listing the weight of the grain ingredients

#### WGR standardized recipe for multi-grain bread

Yield: 100 servings Grain ingredients:

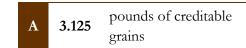
Serving size: one piece Whole-wheat flour: 8 ounces (0.5 pound)

Rolled oats: 1 pound 2 ounces (1.125 pounds) 1

Enriched flour: 1 pound

Enriched cornmeal: 8 ounces (0.5 pound) <sup>1</sup>

Determine the total weight (pounds) of all creditable grains in the recipe (16 ounces = 1 pound). Convert fractions to decimals, e.g., 1<sup>3</sup>/<sub>4</sub> pounds equals 1.75 pounds.



1.625 pounds of whole grains (whole-wheat flour and rolled oats) + 1.5 pounds of enriched grains (enriched flour and enriched cornmeal) = 3.125 pounds of creditable grains

- 2. Determine the **total grams of creditable grains** in the recipe: Multiply A by 453.6 (1 pound = **453.6 grams**).
- 3. List the **number of servings** in the recipe (yield).
- 4. Determine the **grams of creditable grains** per recipe serving: Divide B by C.
- 5. Determine the **ounce equivalents** per recipe serving: Divide D by 16 (1 ounce equivalent = 16 grams of creditable grains).
- 6. Round **down** the number in E to the **nearest** 1/4 **ounce equivalent**. For example, 1.49 and 1.27 round down to 1.25; and 1.24 rounds down to 1.

В	1417.5	grams of creditable grains
С	100	servings per recipe
D	14.175	grams of creditable grains per recipe serving
Е	0.89	ounce equivalent per recipe serving
		ounce equivalent per

F 0.75 recipe serving (rounded)

Summary of crediting information: The recipe's serving (one piece) credits as <sup>3</sup>/<sub>4</sub> ounce equivalent (oz eq) of the grains component. This meets or exceeds the CACFP meal pattern requirement for the meals and snacks indicated below.

Dantiainanta	CACFP meal pattern requirements for grains component			
Participants	Breakfast	Lunch/Supper	Snack	
Ages 1-2	<b>☑</b> ½ oz eq	☑ ½ oz eq	<b>☑</b> ½ oz eq	
Ages 3-5	<b>☑</b> ½ oz eq	☑ ½ oz eq	<b>☑</b> ½ oz eq	
Ages 6-12 and 13-18	□ 1 oz eq	□ 1 oz eq	□ 1 oz eq	
Adult participants	□ 2 oz eq	□ 2 oz eq	□ 1 oz eq	

<sup>&</sup>lt;sup>1</sup> Dry cereal grains used as an ingredient in a recipe (such as rolled oats and cornmeal) credit the same as groups A-E. They require 16 grams of creditable grains to credit as 1 ounce equivalent

#### Method 2 calculation for recipes listing the volume of grain ingredients

If the recipe lists grain ingredients only by volume (e.g., cups and quarts), the CACFP facility must first convert each measurement to the equivalent **weight (grams)**. Any of the methods below may be used for this calculation.

• Nutrition Facts label: Use the manufacturer's serving size information on the Nutrition Facts label for the grain ingredient, such as whole-wheat flour, enriched flour, or whole-grain cornmeal. Multiply the weight (grams) of the manufacturer' serving by 4 to get the grams per cup, then multiply the grams per cup by the number of cups used in the recipe.



For example, a recipe contains 2 cups of whole-wheat flour. The product's Nutrition Facts label states that ½ cup of whole-wheat flour weighs 32 grams. Multiply the weight of the manufacturer' serving (32 grams) by 4 to get the grams per cup (128 grams). Multiply the grams per cup (128 grams) by the number of cups used in the recipe (2 cups) to determine the total weight of the grain ingredient in the recipe (256 grams).

- Nutrient database: Search the USDA's FoodData Central nutrient database for grain ingredients, such as whole-wheat flour or yellow cornmeal. Enter "1" in the data field for the cup measurement, and the database will provide the weight of 1 cup of that ingredient.
- Volume equivalent chart: Use volume equivalent charts that list the weight of 1 cup of grain ingredients. Table 6 shows the weight per cup for some commonly used grain ingredients.
- Yield study: Determine the average weight of 1 cup of the grain ingredient by measuring
  and weighing several samples. For more information, refer to the CSDE's Yield Study Form for
  Child Nutrition Programs.

Table 7 shows how to use method 2 to calculate the ounce equivalents for a recipe that lists the grain ingredients in cups.

Food item	Weight (grams) per cup	
Barley, flour or meal <sup>2</sup>	148	
Barley, hulled <sup>2</sup>	184	
Barley, pearled, uncooked <sup>2</sup>	200	
Barley, pearled, cooked <sup>2</sup>	157	
Breadcrumbs, dry, grated, plain <sup>2</sup>	108	
Breadcrumbs, plain, dry, grated, seasoned <sup>2</sup>	120	
Breadcrumbs, plain soft, white <sup>2</sup>	45	
Bulgur, uncooked <sup>2</sup>	140	
Bulgur, cooked <sup>2</sup>	182	
Cereal, General Mills Cheerios <sup>3</sup>	28	
Cereal, General Mills Corn Chex <sup>3</sup>	31	
Cereal, General Mills Rice Chex <sup>3</sup>	27	
Cereal, General Mills Wheat Chex <sup>3</sup>	47	
Cereal, General Mills Wheaties <sup>3</sup>	36	
Cereal, Kellogg's All-Bran Bran Buds <sup>4</sup>	90	
Cereal, Kellogg's All-Bran Original <sup>4</sup>	62	
Cereal, Kellogg's Corn Flakes crumbs <sup>4</sup>	88	
Cereal, Kellogg's Corn Flakes, whole <sup>4</sup>	28	
Cereal, Kellogg's Rice Krispies <sup>5</sup>	26	
Cereal, Quaker Puffed Rice <sup>5</sup>	14	
Cereal, Quaker Puffed Wheat <sup>5</sup>	28	
Cornmeal, enriched, uncooked, yellow, degerminated <sup>2</sup>	157	
Cornmeal, enriched, uncooked, yellow, whole grain <sup>2</sup>	122	
Cracker crumbs, graham, crushed <sup>2</sup>	84	
Cracker crumbs, snack, standard snack-type, regular, crushed <sup>2</sup>	52	

Table 6. Weights of 1 cup of commonly used grain ingredients 1, continued		
Food item	Weight (grams) per cup	
Flour, buckwheat, whole groats <sup>2</sup>	120	
Flour, corn, whole grain, yellow <sup>2</sup>	117	
Flour, rice, brown <sup>2</sup>	158	
Flour, rice, white <sup>2</sup>	158	
Flour, rye, dark <sup>2</sup>	128	
Flour, rye, light <sup>2</sup>	102	
Flour, wheat, white, all-purpose enriched, bleached <sup>2</sup>	125	
Flour, wheat, white, all-purpose enriched, unbleached <sup>2</sup>	125	
Flour, wheat, white, bread, enriched <sup>2</sup>	137	
Flour, wheat, white, cake, enriched, unsifted, dipped <sup>2</sup>	137	
Flour, wheat, white, self-rising, enriched <sup>2</sup>	125	
Flour, wheat, whole grain <sup>2</sup>	120	
Wheat germ, uncooked, plain <sup>2</sup>	88	
Wheat germ, toasted, plain <sup>2</sup>	115	
Oat bran, raw <sup>2</sup>	94	
Oat bran, cooked <sup>2</sup>	219	
Oats, rolled, quick, uncooked <sup>2</sup>	81	
Oats, rolled, regular, uncooked <sup>2</sup>	81	

The use of brand-name products is solely for clarification regarding serving sizes and does not constitute approval or endorsement by the USDA or CSDE. The actual weight of 1 cup may be more or less than the weights in this chart, depending on the measuring method used, e.g., stirred or unstirred, sifted or unsifted, spooned or dipped, and coarsely or finely crushed. For the most accurate conversion of volume to weight, calculate the average weight of 1 cup of the ingredient by measuring and weighing several samples. For more information, refer to the CSDE's *Yield Study Form for Child Nutrition Programs*.

- <sup>2</sup> USDA's FoodData Central database (Standard Reference (SR) Legacy Data): https://fdc.nal.usda.gov/
- <sup>3</sup> General Mills Cereals: https://www.generalmills.com/en/Brands/Cereals
- <sup>4</sup> Kellogg's Cereals: https://www.kelloggs.com/en\_US/home.html
- <sup>5</sup> Quaker Cereals: https://www.quakeroats.com/products

## Table 7. Using method 2 (creditable grains) to calculate the ounce equivalents for recipes listing the volume of grain ingredients

#### Multi-grain bread

25 servings (one piece)		Convert cups to grams	
Grain ingredient	Measure	Grams per cup 1	Weight (grams)
Whole-wheat flour	2 cups	X 120 =	240.00 grams
Rolled oats 3	<sup>3</sup> / <sub>4</sub> cup	X 181 =	60.75 grams
All-purpose enriched flour	2 cups	X 125 =	250.00 grams
Enriched cornmeal <sup>3</sup>	¹∕₄ cup	X 138 =	34.50 grams
Total weight of creditable grains:			585.25 grams

1. Determine the **combined weight (grams)** of all creditable grains in the recipe.

A 585.25 grams

300.75 grams of whole grains (whole-wheat flour and rolled oats) + 284.5 grams of enriched grains (all-purpose enriched flour and enriched cornmeal) = **585.28 grams** of creditable grains

- 2. List the **number of servings** in the recipe.
- 3. Determine the **grams of creditable grains** per serving: Divide A by B.
- 4. Determine the **ounce equivalents** per recipe serving: Divide C by 16 (1 ounce equivalent = 16 grams of creditable grains). <sup>2</sup>
- 5. Round **down** the number in D to the **nearest** 1/4 **ounce equivalent**. For example, 1.49 and 1.27 round down to 1.25, and 1.24 rounds down to 1.

В	25	servings per recipe
С	23.41	grams of creditable grains per recipe serving
D	1.46	ounce equivalents per recipe serving
Е	1.25	ounce equivalents per recipe serving (rounded)

Summary of crediting information: The recipe's serving (one piece) credits as 1½ ounce equivalents (oz eq) of the grains component. This meets or exceeds the CACFP meal pattern requirement for the meals and snacks indicated below.

Douti simonets	CACFP meal pattern requirements for grains component		
Participants	Breakfast	Lunch/Supper	Snack
Ages 1-2	<b>☑</b> ½ oz eq	<b>☑</b> ½ oz eq	☑ ½ oz eq
Ages 3-5	<b>☑</b> ½ oz eq	☑ ½ oz eq	☑ ½ oz eq
Ages 6-12 and 13-18	□ 1 oz eq	□ 1 oz eq	□ 1 oz eq
Adult participants	□ 2 oz eq	□ 2 oz eq	□ 1 oz eq

- <sup>1</sup> The grams per cup are from the USDA's FoodData Central database (Standard Reference (SR) Legacy Data).
- <sup>2</sup> Dry cereal grains used as an ingredient in a recipe (such as rolled oats and cornmeal) credit the same as groups A-E. They require 16 grams of creditable grains to credit as 1 ounce equivalent

#### Resources

```
Accepting Processed Product Documentation in the CACFP (CSDE):
   https://portal.ct.gov/-
   /media/SDE/Nutrition/CACFP/Crediting/AcceptDocumentationCACFP.pdf
Basics at a Glance Portion Control Poster (Institute of Child Nutrition):
   https://theicn.org/icn-resources-a-z/basics-at-a-glance/
CACFP Grains Ounce Equivalents Resources - Handouts, training slides, and webinars in
   English and Spanish (USDA):
   https://www.fns.usda.gov/tn/grains-ounce-equivalents-resources-cacfp
Crediting Breakfast Cereals in the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/CreditCerealsCACFP.pdf
Crediting Enriched Grains in the CACFP (CSDE):
   https://portal.ct.gov/-
   /media/SDE/Nutrition/CACFP/Crediting/CreditEnrichedGrainsCACFP.pdf
Crediting Whole Grains in the CACFP (CSDE):
   https://portal.ct.gov/-
   /media/SDE/Nutrition/CACFP/Crediting/CreditWholeGrainsCACFP.pdf
Determining Ounce Equivalents of Grains in CACFP Recipes – Handouts in English and
   Spanish (USDA):
   https://www.fns.usda.gov/tn/determining-ounce-equivalents-grains-cacfp-recipes
Exhibit A Grains Tool (USDA's Food Buying Guide for Child Nutrition Programs):
   https://foodbuyingguide.fns.usda.gov/ExhibitATool/Index
Exhibit A Grains Tool to the Rescue (USDA webinar):
   https://www.fns.usda.gov/tn/exhibit-grains-tool-rescue
Exhibit A: Grain Requirements for Child Nutrition Programs (USDA):
   https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/ExhibitA.pdf
Food Buying Guide Section 4: Overview of Crediting Requirements for the Grains Component
   (USDA):
   https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA_FBG_Section4_Grains.pdf
Food Buying Guide Section 4: Yield Table for Grains (USDA):
   https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_Section4_GrainsYieldTable.pdf
FoodData Central (USDA):
   https://fdc.nal.usda.gov/
Grain Crediting Worksheets for CACFP Adult Day Care Centers (Worksheets 1-5)
   ("Documents/Forms" section of the CSDE's Crediting Foods in CACFP Adult Day Care
   Centers webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Child-Care-Programs/
   Documents#CreditingWorksheets
```

```
Grain Crediting Worksheets for CACFP Child Care Programs (Worksheets 1-5)
   ("Documents/Forms" section of the CSDE's Crediting Foods in CACFP Child Care Programs
   webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Child-Care-Programs/
   Documents#CreditingWorksheets
Grain Ounce Equivalents for the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/GrainOzEqCACFP.pdf
Grain-based Desserts in the CACFP – Handouts and webinars in English and Spanish (USDA):
   https://www.fns.usda.gov/tn/grain-based-desserts-cacfp
Grains Component for CACFP Adult Day Care Centers (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Adult-Day-Care-Centers/
   Documents#Grains
Grains Component for CACFP Child Care Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Child-Care-Programs/
   Documents#Grains
How to Identify Creditable Grains for the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/
   IdentifyCreditableGrainsCACFP.pdf
How to Spot Whole Grain-Rich Foods for the CACFP – Handouts in English and Spanish
   (USDA):
   https://www.fns.usda.gov/tn/how-spot-whole-grain-rich-foods-cacfp
Identifying Whole Grain-rich Foods for the CACFP – Handouts and webinars in English and
   Spanish (USDA):
   https://www.fns.usda.gov/tn/identifying-whole-grain-rich-foods-cacfp
Is My Recipe Whole Grain-Rich in the CACFP? – Handouts in English and Spanish (USDA):
   https://www.fns.usda.gov/tn/my-recipe-whole-grain-rich-cacfp
Meal Patterns for CACFP Adult Day Care Centers (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-CACFP-Adult-Centers
Meal Patterns for CACFP Child Care Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-CACFP-Child-Care-Programs
Meeting the Whole Grain-rich Requirement for the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/
   WGR_Requirement_CACFP.pdf
Product Formulation Statement for Documenting Grains in Child Nutrition Programs
   (USDA):
   https://www.fns.usda.gov/sites/default/files/resource-files/
   PFS_Grains_Oz_Eq_Fillable_508.pdf
```

```
Product Formulation Statement for Documenting Grains in Child Nutrition Programs
   - Completed Sample (USDA):
   https://www.fns.usda.gov/sites/default/files/resource-files/
   PFS_Example_Grains_Oz_Eq.pdf
Recipe Analysis Workbook (USDA's Food Buying Guide for Child Nutrition Programs):
   https://www.fns.usda.gov/tn/food-buying-guide-interactive-web-based-tool
Standardized Recipe Form for the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/
   StandardizedRecipeCACFP.docx
Standardized Recipes in CACFP Adult Day Care Centers ("Documents/Forms" section of the
   CSDE's Crediting Foods in CACFP Adult Day Care Centers webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Adult-Day-Care-Centers/
   Documents#StandardizedRecipes
Standardized Recipes in CACFP Child Care Programs ("Documents/Forms" section of the CSDE's
   Crediting Foods in CACFP Child Care Programs webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Child-Care-
   Programs/Documents#StandardizedRecipes
USDA Memo CACFP 09-2018: Grain Requirements in the Child and Adult Care Food Program;
   Questions and Answers:
   https://www.fns.usda.gov/cacfp/grain-requirements-cacfp-questions-and-answers
USDA Memo CACFP 16-2017: Grain-Based Desserts in the Child and Adult Care Food Program:
   https://www.fns.usda.gov/cacfp/grain-based-desserts-child-and-adult-care-food-program
USDA Memo SP 34-2019, CACFP 15-2019 and SFSP 15-2019: Crediting Coconut, Hominy,
   Corn Masa, and Masa Harina in the Child Nutrition Programs:
   https://www.fns.usda.gov/cn/crediting-coconut-hominy-corn-masa-and-masa-harina-child-
   nutrition-programs
Using Child Nutrition (CN) Labels in the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/CNlabelCACFP.pdf
Using Ounce Equivalents for Grains in the CACFP (USDA):
   https://fns-prod.azureedge.net/sites/default/files/resource-files/
   CACFPworksheetGrainsOzEq%20.pdf
Using Product Formulation Statements in the CACFP (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/PFScacfp.pdf
Webinar: Exhibit A Grains Tool to the Rescue (USDA):
   https://www.fns.usda.gov/tn/exhibit-grains-tool-rescue
Webinar: How to Maximize the Exhibit A Grains Tool (USDA):
   https://www.fns.usda.gov/tn/how-maximize-exhibit-grains-tool
Yield Study Form for Child Nutrition Programs (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/YieldStudy.pdf
```



For more information, visit the CSDE's Crediting Foods in CACFP Child Care Programs and Crediting Foods in CACFP Adult Day Care Centers webpages, or contact the CACFP staff in the CSDE's Bureau of Health/Nutrition, Family Services and Adult Education, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841.

This document is available at https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/GrainCalculationCACFP\_ozeq.pdf.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, sex, disability, age, or reprisal or retaliation for prior civil rights activity in any program or activity conducted or funded by USDA.

Persons with disabilities who require alternative means of communication for program information (e.g. Braille, large print, audiotape, American Sign Language, etc.), should contact the Agency (State or local) where they applied for benefits. Individuals who are deaf, hard of hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, (AD-3027) found online at: How to File a Complaint, and at any USDA office, or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

- mail: U.S. Department of Agriculture Office of the Assistant Secretary for Civil Rights
   1400 Independence Avenue, SW
   Washington, D.C. 20250-9410;
- (2) fax: (202) 690-7442; or
- (3) email: program.intake@usda.gov.

This institution is an equal opportunity provider.

The Connecticut State Department of Education is committed to a policy of affirmative action/equal opportunity for all qualified persons. The Connecticut Department of Education does not discriminate in any employment practice, education program, or educational activity on the basis of age, ancestry, color, civil air patrol status, criminal record (in state employment and licensing), gender identity or expression, genetic information, intellectual disability, learning disability, marital status, mental disability (past or present), national origin, physical disability (including blindness), race, religious creed, retaliation for previously opposed discrimination or coercion, sex (pregnancy or sexual harassment), sexual orientation, veteran status or workplace hazards to reproductive systems, unless there is a bona fide occupational qualification excluding persons in any of the aforementioned protected classes.

Inquiries regarding the Connecticut State Department of Education's nondiscrimination policies should be directed to: Levy Gillespie, Equal Employment Opportunity Director/Americans with Disabilities Coordinator (ADA), Connecticut State Department of Education, 450 Columbus Boulevard, Suite 505, Hartford, CT 06103, 860-807-2071, levy.gillespie@ct.gov.